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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,115	05/30/2001	Yong S. Chen	CLX-701	6532

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EXAMINER	
CHORBAJI, MONZER R	

ART UNIT	PAPER NUMBER
1744	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/870,115	CHEN, YONG S.	
	Examiner	Art Unit	
	MONZER R. CHORBAJI	1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *10-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *10-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 January 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This final action is in response to the amendment filed on 04/14/2005

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 10, 12-13, 18 and 20-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 10, line 5; applicant recites the feature "dimples in direct contact with the heating surface of the heating device". The specification only teaches dimples such that it's meaning to one of ordinary skill in the art is an indentation or a depression on a surface. It is not clear how an indentation or a depression can be in direct contact with the heating surface? Clarification is needed to understand the meaning of claim 10. The same applies to claim 18.

In claim 12, line 2; applicant recites the feature "dimples each have a height between about 1 mil and about 24 mils". Again, it is not clear how an indentation or a depression can have a height? Clarification is needed to understand the meaning of claim 12. The same applies to claim 13.

In claim 20, lines 3-4; applicant recites the feature "dimples extending therefrom and in direct contact with a heating surface in an insecticidal vaporizer". Again, it is not clear how a depression can be extending and in direct contact with a heating surface?

Clarification is needed to understand the meaning of claim 10. The same applies to claim 20. The same applies to claim 21.

In claim 22, line 2; applicant recites the feature "dimples extend completely over the exterior bottom surface." The meaning of this limitation is not clear. Does the applicant mean that dimples cover the exterior bottom surface of the container or dimples extending from the exterior bottom surface of the container? Clarification is needed to understand the meaning of claim 22.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 10-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flashinski et al (U.S.P.N. 6,031,967) in view of Barnhart (U.S.P.N. 6,413,476) and further in view of Schiebelhuth (U.S.P.N. 5,283,854).

With respect to claims 10, 18 and 20-21, the Flashinski reference teaches a heat-regulating container (14) for dispensing insecticides (26) into an atmosphere including the following: a heat-regulating container (14) having a flat reservoir with insecticide (22), an interior bottom surface with interior side walls (unlabeled inner surface of 22), exterior outer surface of a lower surface (32), the interior surface of the lower surface (unlabeled inner surface of 22) of the reservoir portion (22). See col.4, lines 34-37, which teaches that the entire container is made from one piece with projections in figure 5 extending from the interior surface of the unlabeled lower surface of the container. The reservoir having a plurality of leg-like projections (col.4, lines 21-23), a heating device (10) with a heating surface (12) at elevated temperature adapted to receive the heat-regulating container (14) and the leg-like projections defining several air gaps (col.4, lines 34-37) between the lower surface of the reservoir portion and the heating surface of the heating device (10) for regulating heat transfer from the heating surface (figure 4: 12) to the volatile material (figure 4: 26). The Flashinski reference teaches convective heating, but fails to disclose that the leg-like projections are in direct contact with a heating surface and the exterior surface of the bottom is dimpled. The Barnhart reference discloses a container (3) whose bottom surface is in direct contact with the heating surface (6) in order to regulate the heat transfer from the heating surface to the volatile material (102) in the container. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the known convective heating means of the Flashinski reference with the known conductive

heating means of the Barnhart reference since such a substitution makes the heating surface closer to the insecticide material for faster dispensing.

With respect to claims 10, 18 and 20-21, the Barnhart reference fails to teach that exterior surface of the bottom of the container is dimpled; however, the Schiebelhuth reference, which is in the art of regulating direct heat for heating container, teaches a container (figure 3: 9) that its exterior bottom surface includes an indentation, i.e., a dimple (figure 3: 23). In addition, if one to look upside down at figure 1, of the Schiebelhuth reference, then 23 is a dimple. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the container of the of the Flashinski reference by substituting the leg-like projections in the bottom of the container with indentations, i.e., dimples as taught by Schiebelhuth reference so that the spatial arrangement of the abutment surface and the electric heating element are not congruent (col.8, lines 29-43).

With respect to claim 11, the Flashinski reference and the Barnhart reference both fail to that the exterior surface of the bottom is dimpled. The Schiebelhuth reference, which is in the art of regulating direct heat for heating container, teaches a container (figure 3: 9) that its exterior bottom surface includes an indentation, i.e., a dimple (figure 3: 23). In addition, if one to look upside down at figure 1, of the Schiebelhuth reference, then 23 is a dimple. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the container of the of the Flashinski reference by substituting the leg-like projections in the bottom of the container with an indentation, i.e., dimple as taught by Schiebelhuth

reference so that the spatial arrangement of the abutment surface and the electric heating element are not congruent (col.8, lines 29-43).

With respect to claims 12-13, the Flashinski reference and the Barnhart reference both fail to disclose that the exterior surface of the bottom is dimpled. The Schiebelhuth reference, which is in the art of regulating direct heat for heating container, teaches a container (figure 3: 9) that its exterior bottom surface includes an indentation, i.e., a dimple (figure 3: 23). The indention (figure 3: 22) has an intrinsic height such that the numbers and the heights of the dimples is a matter of design choice that is well within the scope of the artisan, In addition, if one to look upside down at figure 1, of the Schiebelhuth reference, then 23 is a dimple. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the container of the of the Flashinski reference by substituting the leg-like projections in the bottom of the container with indentations, i.e., dimples as taught by Schiebelhuth reference so that the spatial arrangement of the abutment surface and the electric heating element are not congruent (col.8, lines 29-43).

With respect to claims 14-16, the Flashinski reference teaches the following: the closure means includes an impermeable film (col.3, lines 4-5), the closure means includes a semi permeable membrane (col.2, line 65) and the closure means includes a permeable membrane (col.2, line 65).

With respect to claim 17, the Flashinski reference teaches the container (22) includes a volatile insecticide material (26).

With respect to claim 19, the Flashinski reference and the Barnhart reference both fail to that the exterior surface of the bottom of the container is dimpled. The Schiebelhuth reference, which is in the art of regulating direct heat for heating container, teaches a container (figure 3: 9) that its exterior bottom surface includes an indentation, i.e., dimple (figure 3: 23). In addition, if one to look upside down at figure 1, of the Schiebelhuth reference, then 23 is a dimple. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the container of the of the Flashinski reference by substituting the leg-like projections in the bottom of the container with indentations, i.e., dimples as taught by Schiebelhuth reference so that the spatial arrangement of the abutment surface and the electric heating element are not congruent (col.8, lines 29-43).

With respect to claim 22, the Flashinski reference teaches a series (uniformly-distributed) of leg-like projections (in col.4, lines 21-23) such that the projections (30) extend from completely over the exterior bottom surface (32), but fails to teach that the exterior surface of the bottom of the container is dimpled. The Barnhart reference discloses a flat bottom container and fails to teach that the exterior surface of the bottom of the container is dimpled. The Schiebelhuth reference, which is in the art of regulating direct heat for heating container, teaches a container (figure 3: 9) that its exterior bottom surface includes an indentation, i.e., dimple (figure 3: 23). In addition, if one to look upside down at figure 1, of the Schiebelhuth reference, then 23 is a dimple. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the container of the of the Flashinski reference by

substituting the leg-like projections in the bottom of the container with indentations, i.e., dimples as taught by Schiebelhuth reference so that the spatial arrangement of the abutment surface and the electric heating element are not congruent (col.8, lines 29-43).

5. Claims 10-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flashinski et al (U.S.P.N. 6,031,967) in view of Encyclopedia Britannica Online and further in view of Schiebelhuth (U.S.P.N. 5,283,854).

With respect to claims 10, 18 and 20-21, the Flashinski reference teaches a heat-regulating container (14) for dispensing insecticides (26) into an atmosphere including the following: a heat-regulating container (14) having a flat reservoir with insecticide (22), an interior bottom surface with interior side walls (unlabeled inner surface of 22), exterior outer surface of a lower surface (32), the interior surface of the lower surface (unlabeled inner surface of 22) of the reservoir portion (22). See col.4, lines 34-37, which teaches that the entire container is made from one piece with projections in figure 5 extending from the interior surface of the unlabeled lower surface of the container. The reservoir having a plurality of leg-like projections (col.4, lines 21-23), a heating device (10) with a heating surface (12) at elevated temperature adapted to receive the heat-regulating container (14) and the leg-like projections defining several air gaps (col.4, lines 34-37) between the lower surface of the reservoir portion and the heating surface of the heating device (10) for regulating heat transfer from the heating surface (figure 4:12) to the volatile material (figure 4: 26). The Flashinski reference teaches convective heating, but fails to disclose that the leg-like projections are in direct contact

with a heating surface (i.e., conductive heating) and the exterior surface of the bottom is dimpled. The Encyclopedia Britannica discloses three known means of heating an object that are conduction, convection and radiation. Therefore, it would have been obvious to one having ordinary skill in the art to substitute the known convective heating means of the Flashinski reference with the known conductive heating means of Encyclopedia Britannica since such a substitution result in moving the heat from one object directly to another object (Encyclopedia Britannica Online, line 13).

With respect to claims 10, 18 and 20-21, the Encyclopedia Britannica reference fails to teach that exterior surface of the bottom of the container is dimpled; however, the Schiebelhuth reference, which is in the art of regulating direct heat for heating container, teaches a container (figure 3: 9) that its exterior bottom surface includes an indentation, i.e., a dimple (figure 3: 23). In addition, if one to look upside down at figure 1, of the Schiebelhuth reference, then 23 is a dimple. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the container of the of the Flashinski reference by substituting the leg-like projections in the bottom of the container with indentations, i.e., dimples as taught by Schiebelhuth reference so that the spatial arrangement of the abutment surface and the electric heating element are not congruent (col.8, lines 29-43).

With respect to claim 11, the Flashinski reference and the Encyclopedia Britannica reference both fail to that the exterior surface of the bottom is dimpled. The Schiebelhuth reference, which is in the art of regulating direct heat for heating container, teaches a container (figure 3: 9) that its exterior bottom surface includes an indentation,

i.e., a dimple (figure 3:23). In addition, if one to look upside down at figure 1, of the Schiebelhuth reference, then 23 is a dimple. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the container of the of the Flashinski reference by substituting the leg-like projections in the bottom of the container with an indentation, i.e., dimple as taught by Schiebelhuth reference so that the spatial arrangement of the abutment surface and the electric heating element are not congruent (col.8, lines 29-43).

With respect to claims 12-13, the Flashinski reference and the Encyclopedia Britannica reference both fail to disclose that the exterior surface of the bottom is dimpled. The Schiebelhuth reference, which is in the art of regulating direct heat for heating container, teaches a container (figure 3: 9) that its exterior bottom surface includes an indentation, i.e., a dimple (figure 3: 23). The indention (figure 3: 22) has an intrinsic height such that the numbers and the heights of the dimples is a matter of design choice that is well within the scope of the artisan. In addition, if one to look upside down at figure 1, of the Schiebelhuth reference, then 23 is a dimple. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the container of the of the Flashinski reference by substituting the leg-like projections in the bottom of the container with indentations, i.e., dimples as taught by Schiebelhuth reference so that the spatial arrangement of the abutment surface and

With respect to claims 14-16, the Flashinski reference teaches the following: the closure means includes an impermeable film (col.3, lines 4-5), the closure means

includes a semi permeable membrane (col.2, line 65) and the closure means includes a permeable membrane (col.2, line 65).

With respect to claim 17, the Flashinski reference teaches the container (22) includes a volatile insecticide material (26).

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With respect to claim 22, the Flashinski reference teaches a series (uniformly-distributed) of leg-like projections (in col.4, lines 21-23) such that the projections (30) extend from completely over the exterior bottom surface (32), but fails to teach that the exterior surface of the bottom of the container is dimpled. The Encyclopedia Britannica reference fails to teach that the exterior surface of the bottom of the container is dimpled. The Schiebelhuth reference, which is in the art of regulating direct heat for heating container, teaches a container (figure 3: 9) that its exterior bottom surface

includes an indentation, i.e., dimple (figure 3: 23). In addition, if one to look upside down at figure 1, of the Schiebelhuth reference, then 23 is a dimple. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the container of the of the Flashinski reference by substituting the leg-like projections in the bottom of the container with indentations, i.e., dimples as taught by Schiebelhuth reference so that the spatial arrangement of the abutment surface and the electric heating element are not congruent (col.8, lines 29-43).

Response to Arguments

6. Applicant's arguments filed on 04/14/2005 have been fully considered but they are not persuasive.

On page 12 of the Response section; applicant argues that, "the cited prior art references fail to teach a flat reservoir with a dimpled lower surface for volatilizing insecticides." The newly applied reference, the Schiebelhuth, which is in the art of regulating direct heat for heating containers, teaches a container (figure 3: 9) that its exterior bottom surface includes an indentation, i.e., a dimple (figure 3: 23). In addition, if one to look upside down at figure 1, of the Schiebelhuth reference, then 23 is a dimple. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the container of the of the Flashinski reference by substituting the leg-like projections in the bottom of the container with indentations, i.e., dimples as taught by Schiebelhuth reference so that the spatial arrangement of the abutment surface and the electric heating element are not congruent (col.8, lines 29-43).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Newsham reference (U.S.P.N. 14,271), the Legeros reference (U.S.P.N. 2,070,439) and the Adams reference (U.S.P.N. 3,466,424) all discloses dimpled bottom surfaces. The references are all in the art of heating.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

9. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R. CHORBAJI whose telephone number is (571) 272-1271. The examiner can normally be reached on M-F 6:30-3:00.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN KIM can be reached on (571) 272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Monzer R. Chorbaji MRC
Patent Examiner
AU 1744
06/23/2005

JOHN KIM
SUPERVISORY PATENT EXAMINER